Grade Level of Achievement:

2008–09 Provincial Report

JUNE 2010

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This document is intended primarily for:

System and School Administrators
Education Stakeholders
Alberta Education
Teachers
Parents
Community Members

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EXECUTIVE SUMMARY

This report highlights key insights from the analysis of 2008–09 Grade Level of Achievement (GLA) data at the provincial level to inform the program planning and evaluation needs of Alberta Education as well as school and central office based administrators. GLA data reported to Alberta Education is a teacher's judgment of a student's academic progress. Given the comprehensiveness of classroom-based assessment, analysis of GLA data provides value-added perspectives into factors that affect all students, as well as for specific cohorts served by a range of special programs.

GLA data are not used as part of the Accountability Pillar; however, analysis of GLA data can add depth to understandings related to Accountability Pillar data. This is especially true when provincial data are compared to school and/or jurisdiction level data. Key purposes of reporting GLA to parents and to Alberta Education include identifying students who are under-achieving, asking why and providing solutions both individually and systemically. Benefits in reporting GLA to Alberta Education include:

- GLA shows parents how well students are performing when compared to set learning objectives.
- GLA provides schools, school boards and the ministry ways to measure the effectiveness of education programs targeting special groups like English as a Second Language
- students and students with special needs.
- GLA results analyzed relative to gender differences, student mobility, and student birth month shows how the education needs of students can be better met if these factors are shown to be negatively affecting achievement.
- GLA enables Alberta Education to improve how to assess student performance.
- GLA requires Alberta Education to be more accountable to Albertans in providing an excellent education system.

Background

The purpose of this report is to provide student achievement information at the system level (both jurisdictional and provincial) to:

- inform effective practices, and determine the impact of current and future refinements for specific programs; e.g., English as a second language and special education
- determine effective practices and strategies to foster higher levels of student achievement and confidence
- contribute to the data or evidence used to report student achievement to parents/guardians, thereby fulfilling the school's responsibility, as outlined in the "*Assessment as the Basis for Communicating Individual Student Achievement*" section of the *Guide to Education: ECS to Grade 12* (Alberta Education, 2009b).

See also *Grade Level of Achievement Reporting: Teacher and Administrator Handbook* (Alberta Education, 2006:4) for a comprehensive overview of the GLA reporting initiative.

INTRODUCTION: GLA DEFINITIONS AND PURPOSES

Grade Level of Achievement (GLA) data measure student achievement relative to enrolled grade, and incorporate the following three categories:

(1)   below (enrolled) grade level
(2)   at (enrolled) grade level
(3)   above (enrolled) grade level.

GLA data are based on a teacher's evaluation of a student's academic progress on the curricular learning outcomes. The final GLA assessment is based on the full range of classroom assessments over a school year. In making a professional judgment of the student's GLA, teachers are encouraged to consider GLA in relationship to the full range of formative and summative assessment information available to them over the course of the school year.

GLA data in English and French language arts and mathematics for grades 1 through 9 are reported annually by school jurisdictions to Alberta Education via an electronic Data Submission System (refer for further details to the *Grade Level of Achievement Reporting: Teacher and Administrator Handbook* and other resources at www.education.alberta.ca/admin/resources/gla.aspx). Schools and jurisdictions, in turn, are able to retrieve the broad range of GLA data on their students, relative to an array of factors that can affect student achievement, and compare their students' outcomes to the provincial results to better understand the factors that influence their students' learning needs.

This report describes 2008–09 GLA data collection, analysis and outcomes. The purpose of this report is to provide enriched student achievement information at the system level (both jurisdictional and provincial) to:

- inform effective practices and determine the impact of current and future refinements for specific programs; e.g., English as a second language and special education
- determine effective practices and strategies to foster higher levels of student achievement and confidence
- contribute to the data or evidence used to report student achievement to parents/guardians, thereby fulfilling the school's responsibility, as outlined in the *"Assessment as the Basis for Communicating Individual Student Achievement"* section of the *Guide to Education: ECS to Grade 12* (Alberta Education, 2009b).

(See also *Grade Level of Achievement Reporting: Teacher and Administrator Handbook* [Alberta Education, 2006:4] for a comprehensive overview of the GLA reporting initiative.)

DESIGN AND COLLECTION OF GLA DATA

A total of 1,623 schools from 73 school authorities submitted usable GLA data for 361,850 students, 357,266 of whom were on a graded curriculum and 4,584 who were not on a graded curriculum. The fields collected are as follows:

All Students:

- student name (surname and given name)
- Alberta Student Number
- enrolled grade (defined as the grade to which the student was assigned).

GLA data were collected for all grades 1 through 9 students in public, separate, Francophone and charter schools on a graded curriculum, as defined in the Alberta programs of study, in the following fields (where applicable):

- GLA in English language arts
- GLA in French language arts (FLA); French as the language of instruction or immersion students
- GLA in mathematics
- Grade English language arts, introduced (FLA students only).

Students not on a graded curriculum also had data submitted. "Not on a Graded Curriculum" program is restricted to learning outcomes that are significantly different from the provincial curriculum, defined in the program of studies, and are specifically selected to meet the student's special needs, as defined in the *Standards for Special Education* (Alberta Learning, 2004). The information collected was teachers' ratings of student learning outcomes in the following three areas.

- *communication skills* that involve the development of expressive and/or receptive communication; e.g., verbal communication and/or alternative modes of communication
- *functional skills* that would assist students in developing independence in the home, school and community
- *academic readiness skills* that would prepare students for learning outcomes in the programs of study.

Alberta Education staff used the Alberta Student Number to append data fields such as PAT results, student age, gender, total number of school registrations (Student Mobility Indicator) and any additional special needs codes associated with the student. These individual student identifiers were then replaced with discrete GLA data IDs, leaving no personal identifiers in the dataset used in producing this report.

STUDENTS ON A GRADED CURRICULUM—GRADE LEVEL OF ACHIEVEMENT AND ASSOCIATED FACTORS: SUMMARY OF RESULTS

There were 357,266 grades 1 to 9 students on a graded curriculum in the 2008–09 school year. Their distribution, in each of the GLA outcomes categories by subject, is shown in Table 1 below.

Table 1 – GLA Results for All Students at a Provincial Level (Grades 1-9)

	Mathematics		English Language Arts		French Language Arts	
	Number of students	Percent of total	Number of students	Percent of total	Number of students	Percent of total
GLA below grade level	30,768	8.6	34,234	9.6	1,033	3.8
GLA at grade level	317,165	88.8	308,733	86.4	24,356	88.7
GLA above grade level	4,161	1.2	3,332	0.9	324	1.2
No GLA provided[1]	5,172	1.5	10,977	3.1	1,733	6.3
Total	**357,266**	**100**	**357,266**	**100**	**26,494**	**100**

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[1] "No GLA provided" refers to missing data (e.g., a small number of students with no GLA data submitted), or "not available" situation (e.g., there is insufficient information to judge GLA).

Coded and Non-coded Students

School authorities may code students as being *severely, mildly or moderately disabled, gifted* or *English as a second language* (ESL). Students who do not receive any of these codes are termed *non-coded*. As shown in Table 2 below, the non-coded students represent the largest proportion of GLA data.

Table 2 – Student Numbers by Types of Codes (Grades 1–9)

	GLA Frequency	Percent of GLA Total
Non-coded (not coded as mild or moderate, severe, gifted, or ESL)	277,477	77
Severe Disabilities	10,093	2.8
Mild or Moderate Disabilities	25,919	7.3
Gifted	5,261	1.5
ESL – Canadian-born	20,993	5.9
ESL – Foreign-born	19,824	5.5
Total	**359,567***	**100**

*This is higher than the total in Table 1 (357,266) because some students have multiple codes.

The GLA results for the cohort of non-coded students are displayed in Table 3 below.

Table 3 – GLA Results for Non-coded Students at a Provincial Level (Grades 1–9)

	Mathematics		English Language Arts		French Language Arts	
	Number of students	Percent of total	Number of students	Percent of total enrolled	Number of students	Percent of total
GLA below grade level	14,581	5.3	14,978	5.4	756	3.1
GLA at grade level	257,626	92.9	252,842	91.1	22,014	89.7
GLA above grade level	2,803	1.0	2,700	1.0	270	1.1
No GLA provided	2,467	0.9	6,957	2.5	1,488	6.1
Total	**277,477**	**100**	**277,477**	**100**	**24,528**	**100**

Students Coded with Severe Disabilities

There were 10,093 students province-wide coded as having severe disabilities who had GLA reported for English language arts (ELA) and mathematics, and 175 students who had GLA reported for French language arts (FLA).

GLA results in mathematics and English language arts show close similarity. Over 55 percent but less than 60 percent of students with severe disabilities had a GLA equal to their enrolled grade and over one third of these students fell below grade level in both subjects. A very low proportion of French immersion or French as the language of instruction students (175 students only) were coded as being severely disabled and, in contrast to their counterparts in English language arts, as high as 75 percent of them achieved their enrolled grade.

Table 4 below presents their GLA outcomes.

Table 4 – GLA Results for Students with Severe Disabilities—Provincial Level

	Mathematics		English Language Arts		French Language Arts	
	Number of students	Percent of total	Number of students	Percent of total enrolled	Number of students	Percent of total
GLA below grade level	3,534	35.0	3,702	36.7	26	14.9
GLA at grade level	5,818	57.6	5,609	55.6	132	75.4
GLA above grade level	38	0.4	40	0.4	0	0.0
No GLA provided	703	7.0	742	7.4	17	9.7
Total	10,093	100	10,093	100	175	100

Table 5 below further details GLA results by severe disability type. The majority of students with severe disabilities were coded with an emotional/behavioural or a physical/medical disability. On average, over 55 but less than 62 percent of these students met their enrolled grade requirements and about one third performed below grade level. Small groups of students with severe cognitive and multiple disabilities exhibited particularly low GLA outcomes (under 30 percent achieved at or above enrolled grade level). Only 15 percent or less of students with blindness (105 students) did not meet their grade requirements and over 80 percent of these students achieved at or above grade level. Deaf students demonstrated markedly better GLA performance in mathematics (56 percent at or above grade level) than in English language arts (45 percent).

Table 5 – GLA Results by Type of Severe Disability

Type of Severe Disability	Total		Mathematics			English Language Arts		
	Number of Students	Total Percentage	At/above grade level	Below grade level	No GLA provided	At/above grade level	Below grade level	No GLA provided
			Percentage within each disability type					
Cognitive	92	0.9	15.2	30.4	54.3	14.1	32.6	53.3
Emotional/ Behavioural	5,255	52.1	61.8	32.8	5.4	59.1	35.1	5.8
Multiple	350	3.5	26.9	53.7	19.4	28.6	51.7	19.7
Physical or Medical	4,086	40.5	56.3	36.6	7.1	55.1	37.3	7.6
Deafness	204	2.0	56.4	39.7	3.9	44.6	52.0	3.4
Blindness	105	1.0	82.9	14.3	2.9	81.0	15.2	3.8
Total	10,093	100	58.0	35.0	7.0	56.0	37.0	7.0

The high degree of variation in results across the different types of severe disabilities demonstrates the importance of considering the specific types of disabilities when reviewing achievement results for students with severe disabilities, as well as for planning and allocating resources to best meet student learning needs.

When the students with severe disabilities are split by gender, large differences between genders become apparent. An overwhelming majority (77.5 percent) of students coded with a severe disability were males (most of them were students with an emotional or a behavioural disability), while 22.5 percent were females (see Table 6 below). However, males with severe disabilities tended to generally outperform female counterparts in both English language arts and mathematics (see Figures 1 and 2). Higher percentages of males across most disability types had GLA at or above grade level in both mathematics and English language arts compared to females (with the exception of students who were blind). These patterns are very consistent with the results of GLA data analysis presented in the previous, *2007–08 GLA Provincial Report* (Alberta Education, 2009a).

Table 6 – GLA Results for Students with Severe Disabilities by Gender

Type of Disability	Gender	Number of Students	Percent
Severe Cognitive	Male	55	59.8
	Female	37	40.2
Severe Emotional /Behavioural	Male	4,319	82.2
	Female	936	17.8
Severe Multiple	Male	217	62.0
	Female	133	38.0
Severe Physical or Medical	Male	3,059	74.9
	Female	1,027	25.1
Blindness	Male	69	65.7
	Female	36	34.3
Total	**Male**	**7,821**	**77.5**
	Female	**2,272**	**22.5**

Students with Severe Disabilities: GLA by Gender in Mathematics (All Grades)

| | | 7.0 | 7.6 | 4.0 | 3.9 | 5.3 | 5.8 | 4.3 | 0.0 |

Legend: No GLA provided (green), Below grade (red), At/above grade (blue)

Disability	Gender (n)	No GLA provided	Below grade	At/above grade
Cognitive	M (n=55)	47.3	34.5	18.2
Cognitive	F (n=37)	64.9	24.3	10.8
Multiple	M (n=217)	20.3	50.2	29.5
Multiple	F (n=133)	18.0	59.4	22.6
Physical/Medical	M (n=3,059)	7.0	34.7	58.4
Physical/Medical	F (n=1,027)	7.6	42.4	50.0
Deafness	M (n=101)	4.0	31.7	64.4
Deafness	F (n=103)	3.9	47.6	48.5
Emotional/Behavioural	M (n=4,319)	5.3	32.2	62.5
Emotional/Behavioural	F (n=936)	5.8	35.8	58.4
Blindness	M (n=69)	4.3	14.5	81.2
Blindness	F (n=36)	0.0	13.9	86.1

Figure 1: Gender-related GLA Results in Mathematics for Students Coded with Various Types of Severe Disabilities

Students with Severe Disabilities: GLA by Gender in English LA (All Grades)

| | | | | 4.0 | 2.9 | 5.9 | 5.0 | 5.8 | 0.0 |

Legend: No GLA provided (green), Below grade level (red), At/above grade level (blue)

Disability	Gender (n)	No GLA provided	Below grade level	At/above grade level
Cognitive	M (n=55)	47.3	36.4	16.4
Cognitive	F (n=37)	62.2	27	10.8
Multiple	M (n=217)	21.2	47	31.8
Multiple	F (n=133)	17.3	59.4	23.3
Physical/Medical	M (n=3,059)	7.5	36.4	56.1
Physical/Medical	F (n=1,027)	7.8	39.8	52.4
Deafness	M (n=101)	4.0	47.5	48.5
Deafness	F (n=103)	2.9	56.3	40.8
Emotional/Behavioural	M (n=4,319)	5.9	35.4	58.7
Emotional/Behavioural	F (n=936)	5.0	33.8	61.2
Blindness	M (n=69)	5.8	15.9	78.3
Blindness	F (n=36)	0.0	13.9	86.1

Figure 2: Gender-related GLA Results in English Language Arts for Students Coded with Various Types of Severe Disabilities

Students Coded with Mild or Moderate Disabilities

There were 25,919 students in 2008–09 with mild or moderate disability codes in English language arts and mathematics. In French language arts, a small group of 678 students were coded as having a mild or moderate disability (see Table 7 below).

In both mathematics and English language arts, the proportion of students with mild or moderate disabilities who have a GLA equal to their enrolled grade was around 60 percent or slightly higher and the proportion of students with GLA below enrolled grade varied between 33 and 38 percent. These general results for students coded as having mild or moderate disability are not dissimilar to the corresponding GLA results for students identified as having severe disabilities (see Table 4).

Table 7 – GLA Results for Students with Mild or Moderate Disabilities— Provincial Level

	Mathematics		English Language Arts		French Language Arts	
	Number of students	Percent of total	Number of students	Percent of total	Number of students	Percent of total
GLA below grade level	8,564	33.0	9,756	37.6	157	20.0
GLA at grade level	16,605	64.1	15,307	59.1	559	71.3
GLA above grade level	72	0.3	41	0.2	1	0.1
No GLA provided	678	2.6	815	3.1	67	8.5
Total	**25,919**	**100**	**25,919**	**100**	**784**	**100**

When split by the type of disability (see Table 8 below), GLA results for students on a graded curriculum coded with a mild or moderate disability reveal a great deal of variation depending on disability category. The largest proportion of students had a learning disability, followed by communication disability and mild cognitive disability. The highest proportions of students attaining below grade level (62 and 66 percent) were those with a moderate or mild cognitive disability. Only one quarter or less of these students achieved at their enrolled grade level. At the same time, a small number of students with a mild or moderate hearing or visual disability tended to achieve at a relatively high level, with over 80 percent of these students performing at or above grade level. Likewise, relatively high proportions (between two thirds and three quarters) of students with emotional/behavioural, learning, communication or physical/medical disabilities achieved at or above GLA in both mathematics and English language arts.

Table 8 – GLA Results by Type of Mild or Moderate Disability

Type of Mild or Moderate Disability	Total		Mathematics			English Language Arts		
	Frequency	Percent	At/Above Grade Level	Below Grade Level	GLA NA	At/Above Grade Level	Below Grade Level	GLA NA
			Percentage within each disability type					
Mild Cognitive	3,712	14.3	27.3	65.9	6.8	26.0	66.6	7.4
Moderate Cognitive	156	0.6	12.8	61.5	25.6	11.5	62.8	25.6
Emotional/Behavioural	2,364	9.1	74.2	24.2	1.6	74.8	23.1	2.2
Learning	11,809	45.6	69.6	28.8	1.6	63.3	35.2	1.5
Hearing	273	1.1	81.7	17.2	1.1	81.3	17.2	1.5
Visual	41	0.2	80.5	19.5	0.0	78.0	22.0	0.0
Communication	4,459	17.2	74.4	23.7	1.9	63.2	32.9	3.9
Physical/Medical	1,809	7.0	75.8	22.3	1.8	75.5	22.2	2.3
Multiple	1,291	5.0	55.8	40.8	3.3	52.7	43.4	4.0
Total	**25,919**	**100**	**64.3**	**33.0**	**2.6**	**59.2**	**37.6**	**3.1**

Table 9 below illustrates the gender differences in GLA categories across the mild or moderate disability types. Coding in various mild or moderate disability groups was noticeably prevalent among males—generally higher percentages and numbers of males were coded in this category compared to females. This prevalence was similar to the one noted for students with severe disabilities.

Table 9 – GLA Results for Students with Mild or Moderate Disability by Gender

Type of Mild or Moderate Disability	Gender	Number of Students	Percent
Mild Cognitive	Male	2,209	59.5
	Female	1,503	40.5
Moderate Cognitive	Male	73	46.8
	Female	83	53.2
Emotional/ Behavioural	Male	1,754	74.2
	Female	610	25.8
Learning	Male	7,393	62.6
	Female	4,416	37.4
Hearing	Male	145	53.1
	Female	128	46.9
Communication	Male	2,896	64.9
	Female	1,563	35.1
Physical/ Medical	Male	562	31.1
	Female	1,247	68.9
Multiple	Male	386	29.9
	Female	905	70.1
Visual	Male	15	36.6
	Female	26	63.4
Total	Male	16,649	64.2
	Female	9,270	35.8

Students coded with mild or moderate disabilities revealed gender-related GLA patterns that were quite different from their counterparts coded with various severe disabilities (see Figures 3 and 4). Unlike females with severe disabilities who generally performed at a lower level (in mathematics and English language arts) in comparison to males in similar disability categories, females coded with various mild or moderate disabilities often (slightly) outperformed males. For example, females with mild or moderate disabilities generally either slightly outperformed males or achieved equally in English language arts. In mathematics, gender differences in GLA achievement among students with mild or moderate disabilities showed a "mixed" pattern, with males outperforming females in five disability categories and females outperforming males in the four categories.
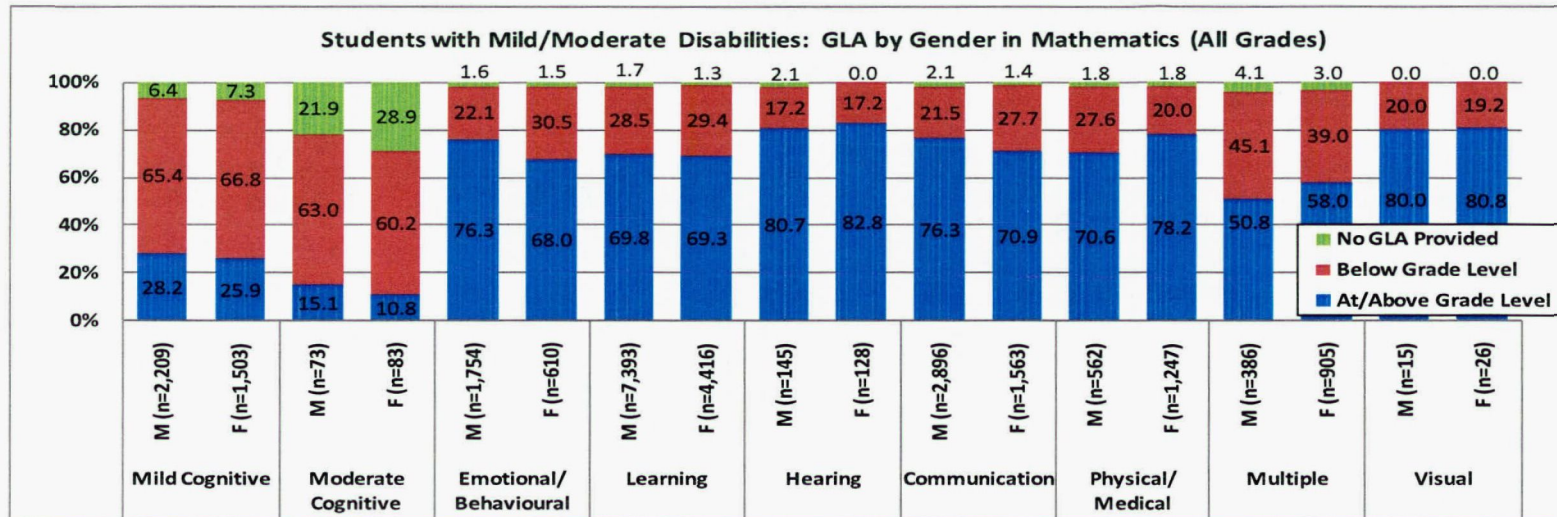
Students with Mild/Moderate Disabilities: GLA by Gender in Mathematics (All Grades)

Category	Mild Cognitive M (n=2,209)	Mild Cognitive F (n=1,503)	Moderate Cognitive M (n=73)	Moderate Cognitive F (n=83)	Emotional/Behavioural M (n=1,754)	Emotional/Behavioural F (n=610)	Learning M (n=7,393)	Learning F (n=4,416)	Hearing M (n=145)	Hearing F (n=128)	Communication M (n=2,896)	Communication F (n=1,563)	Physical/Medical M (n=562)	Physical/Medical F (n=1,247)	Multiple M (n=386)	Multiple F (n=905)	Visual M (n=15)	Visual F (n=26)
No GLA Provided	6.4	7.3	21.9	28.9	1.6	1.5	1.7	1.3	2.1	0.0	2.1	1.4	1.8	1.8	4.1	3.0	0.0	0.0
Below Grade Level	65.4	66.8	63.0	60.2	22.1	30.5	28.5	29.4	17.2	17.2	21.5	27.7	27.6	20.0	45.1	39.0	20.0	19.2
At/Above Grade Level	28.2	25.9	15.1	10.8	76.3	68.0	69.8	69.3	80.7	82.8	76.3	70.9	70.6	78.2	50.8	58.0	80.0	80.8

Figure 3: **Gender-related GLA Results in Mathematics for Students Coded with Various Types of Mild or Moderate Disabilities**

Students with Mild or Moderate Disabilities: GLA by Gender in English Language Arts (All Grades)

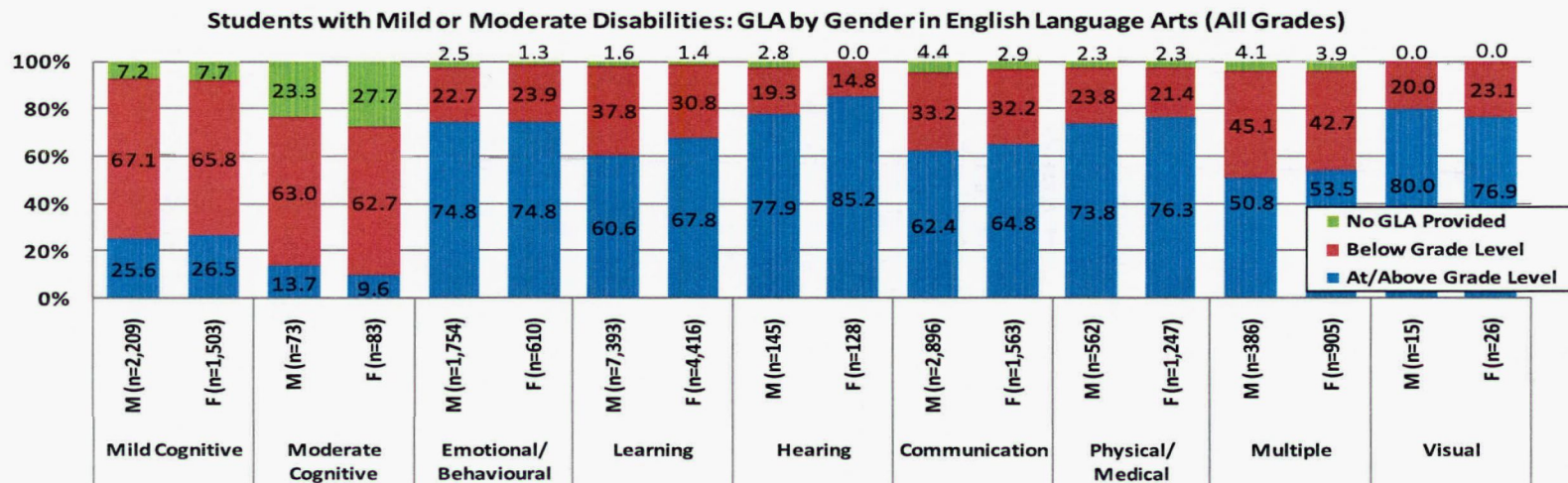| Category	Mild Cognitive M (n=2,209)	Mild Cognitive F (n=1,503)	Moderate Cognitive M (n=73)	Moderate Cognitive F (n=83)	Emotional/Behavioural M (n=1,754)	Emotional/Behavioural F (n=610)	Learning M (n=7,393)	Learning F (n=4,416)	Hearing M (n=145)	Hearing F (n=128)	Communication M (n=2,896)	Communication F (n=1,563)	Physical/Medical M (n=562)	Physical/Medical F (n=1,247)	Multiple M (n=386)	Multiple F (n=905)	Visual M (n=15)	Visual F (n=26)
No GLA Provided	7.2	7.7	23.3	27.7	2.5	1.3	1.6	1.4	2.8	0.0	4.4	2.9	2.3	2.3	4.1	3.9	0.0	0.0
Below Grade Level	67.1	65.8	63.0	62.7	22.7	23.9	37.8	30.8	19.3	14.8	33.2	32.2	23.8	21.4	45.1	42.7	20.0	23.1
At/Above Grade Level	25.6	26.5	13.7	9.6	74.8	74.8	60.6	67.8	77.9	85.2	62.4	64.8	73.8	76.3	50.8	53.5	80.0	76.9

Figure 4: **Gender-related GLA Results in English Language Arts for Students Coded with Various Types of Mild or Moderate Disabilities**

Students Who Are Gifted

Among 357,266 students on a graded curriculum, 5,261 were coded as being gifted in English language arts or mathematics. There were 398 students in French language arts coded as gifted. Table 10 below shows the grade level of achievement distributions for these students.

The intrinsic assumption that students who are gifted should achieve better than the general student population was confirmed by GLA data. Noticeably higher percentages of students who are gifted were outperforming their enrolled grade level (14.6 and 4.5 percent in mathematics and English language arts respectively compared to 1.2 and 0.9 percent of all students in the province [see Table 1] and to 1.0 percent for both mathematics and English language arts of non-coded students [see Table 3]). Congruent to the previous 2007–08 GLA outcomes, gifted students tend to perform better in mathematics than in English language arts with approximately 10 percent more students having a GLA "above grade level" in mathematics.

Table 10 – GLA Results for Students who are Gifted—Provincial Level

	Mathematics		English Language Arts		French Language Arts	
	Number of students	Percent of total	Number of students	Percent of total	Number of students	Percent of total
GLA below grade level	34	0.6	34	0.6	1	0.3
GLA at grade level	4,446	84.5	4,754	90.4	346	86.9
GLA above grade level	768	14.6	237	4.5	10	2.5
No GLA provided	13	0.2	236	4.5	41	10.3
Total	**5,261**	**100**	**5,261**	**100**	**398**	**100**

English as a Second Language Students

For ESL students, there were two groups of student codes (see Table 11):
- Canadian-born (code 303) encompassing 20,993 students in English language arts and mathematics and 976 students in French language arts
- foreign-born (code 301), including 19,824 students in English language arts and mathematics and 609 students in French language arts.

Both Canadian-born and foreign-born ESL students tend to demonstrate similar GLA patterns; however, the biggest differences are found with French language arts results (seven percent difference). Approximately 83 percent attained a GLA equal to enrolled grade in mathematics and 75 to 78 percent achieved at grade level in English language arts. Substantial proportions (11 to 17 percent) achieved below enrolled grade; however, compared to 2007–08 data, a 1.2 percent reduction in the percent of Canadian-born students and a 1.3 percent reduction in the percent of foreign-born students below grade level in English language arts are notable.

For Ministry-sponsored research into ESL, see Howard Research and Management Consulting Inc's *A Review of K–12 ESL Education in Alberta*, and a literature review update at http://education.alberta.ca/teachers/program/esl/eslreview.aspx.

Table 11 – GLA Results for ESL Students—Provincial Level

	Mathematics		English Language Arts		French Language Arts	
	Number of students	Percent of total	Number of students	Percent of total	Number of students	Percent of total
Canadian-born:						
GLA below grade level	2,830	13.5	3,577	17.0	66	6.8
GLA at grade level	17,382	82.8	16,375	78.0	840	86.1
GLA above grade level	284	1.4	212	1.0	30	3.1
No GLA provided	497	2.4	829	3.9	40	4.1
Total	**20,993**	**100**	**20,993**	**99.9**	**976**	**100**
Foreign-born:						
GLA below grade level	2,138	10.8	3,221	16.2	27	4.4
GLA at grade level	16,473	83.1	14,907	75.2	482	79.1
GLA above grade level	245	1.2	113	0.6	13	2.1
No GLA provided	968	4.9	1,583	8.0	87	14.3
Total	**19,824**	**100**	**19,824**	**100**	**609**	**100**

Student Gender

Given growing interest in achievement differences depending on gender, students' GLA was analyzed to observe any gender-based variations. As illustrated in Figure 5 below, in 2008–09 females tended slightly, and consistently, to outperform males in mathematics, English language arts and French language arts.
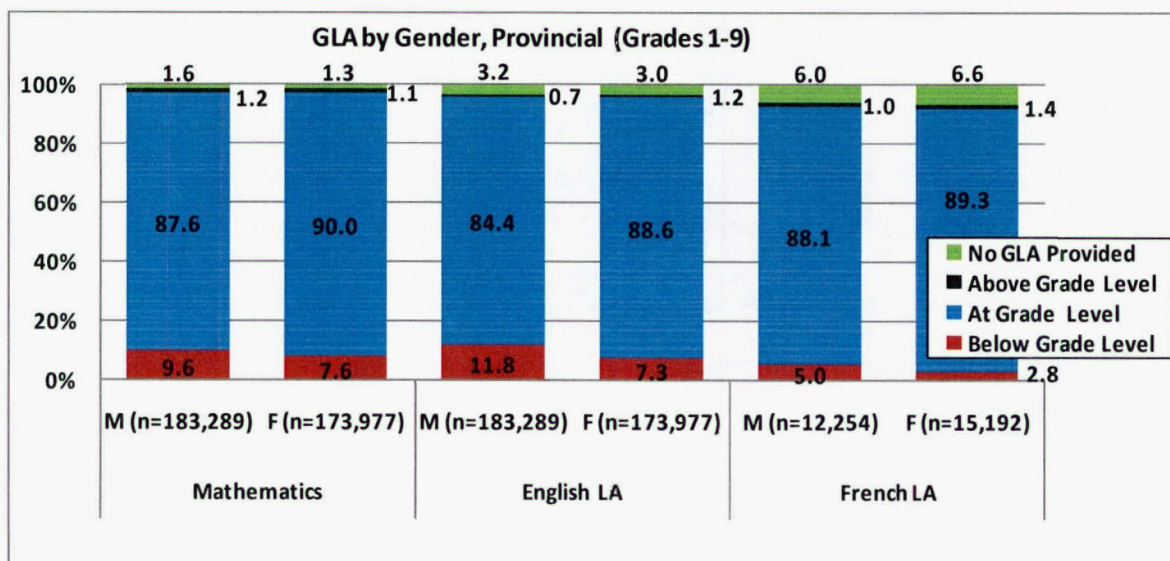

Figure 5: Gender-related GLA Results for all Students in Grades 1–9

A higher percentage of female students achieve at or above grade level in mathematics, English language arts and French language arts by 2.3, 3.7 and 1.6 percent respectively. These figures are similar to 2007–08 differences of 2.3, 4.9 and 2.1 percent, respectively. The consistency of these differentials in mathematics contradicts data from PATs and suggests there could be gender bias influencing classroom assessment. Input from the *Alberta Student Assessment Study* points to the potential for gender bias to unfairly affect classroom assessment (see p. 121 at http://education.alberta.ca/department/ipr.aspx). Also, the student-focused *Speak-Out* initiative noted the importance of fairness, acceptance and support in student–teacher relationships (see p. 21 at http://www.speakout.alberta.ca/WeHearYou/tabid/108/Default.aspx).

Student Grade

As illustrated in Figures 6 and 7, the percentages of students who did not meet their GLA in mathematics tended to increase by grade. The results for English language arts revealed a reversed trend: somewhat higher percentages of older students were more likely to achieve at grade level in comparison to younger students. Across all grades, fairly small percentages of students (under 2 percent) achieved above grade level. The higher percentage of students with no GLA data in Grade 1 and Grade 2 English language arts reflect French language arts students who do not begin this curriculum until Grade 2 or Grade 3.
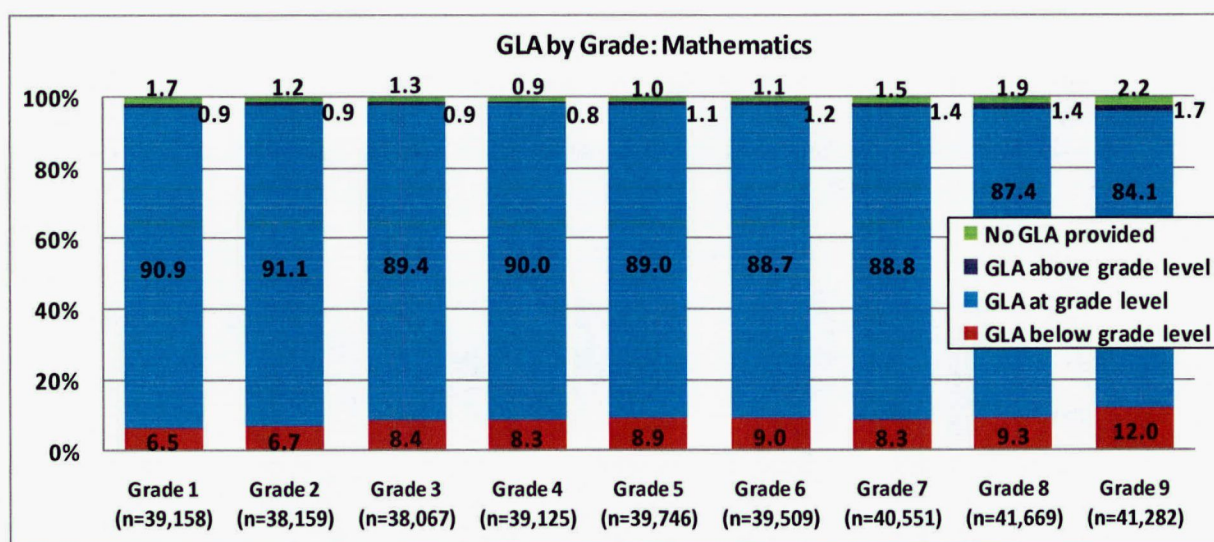

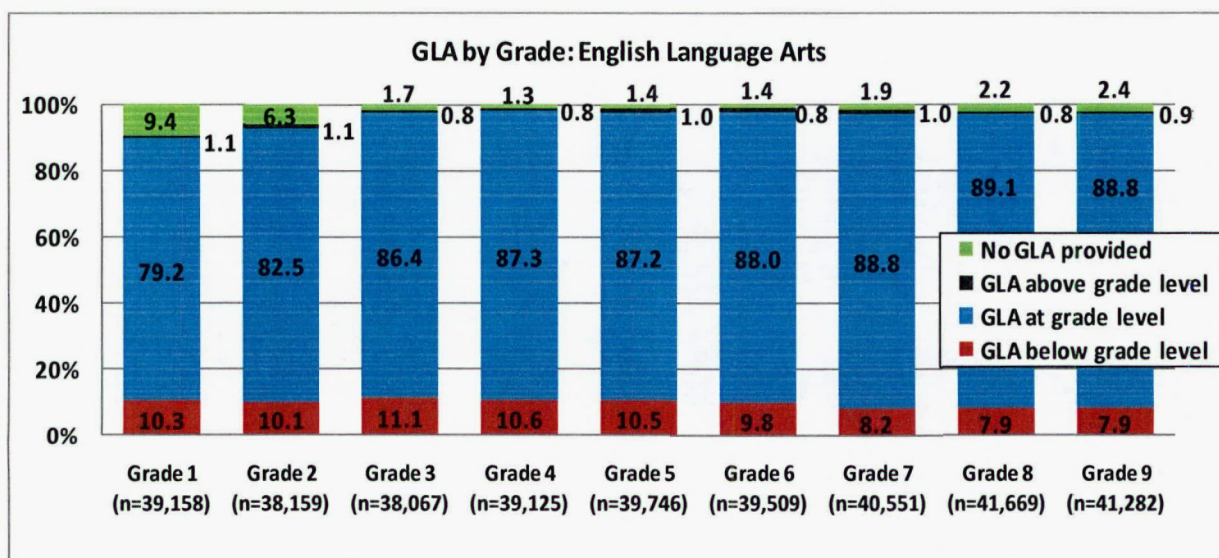*Figure 6*: **Grade-related 2008–09 GLA Results in Mathematics**

GLA by Grade: English Language Arts

Grade	GLA below grade level	GLA at grade level	GLA above grade level	No GLA provided
Grade 1 (n=39,158)	10.3	79.2	1.1	9.4
Grade 2 (n=38,159)	10.1	82.5	1.1	6.3
Grade 3 (n=38,067)	11.1	86.4	0.8	1.7
Grade 4 (n=39,125)	10.6	87.3	0.8	1.3
Grade 5 (n=39,746)	10.5	87.2	1.0	1.4
Grade 6 (n=39,509)	9.8	88.0	0.8	1.4
Grade 7 (n=40,551)	8.2	88.8	1.0	1.9
Grade 8 (n=41,669)	7.9	89.1	0.8	2.2
Grade 9 (n=41,282)	7.9	88.8	0.9	2.4

Figure 7: Grade-related 2008–09 GLA Results in English Language Arts

Age Effect: Student Month of Birth

Previous research conducted by Alberta Education and based on PAT and GLA student achievement data from various years (e.g., Alberta Learning, 2001; Alberta Education, 2008, 2009) demonstrated that early elementary students, who were older than other students enrolled in the same grade, tended to outperform their younger counterparts. Analysis of the most recent 2008–09 GLA data presented in this report further substantiates these findings. Figure 8 illustrates Grade 1 student achievement relative to month of birth. Students born in the first January and February are the oldest students in the grade. The youngest students (who started Grade 1 about eight to 10 months later than the oldest ones) were born in the second January and February. The straight line on the graph represents a linear trend. The graph reveals that higher percentages of older students tend to achieve at or above their enrolled grade level compared to their younger counterparts.[2] Previous studies, including the 2007–08 provincial GLA report (Alberta Education, 2009a), came to a congruent conclusion that the age effect was typical for the early elementary grades and gradually dissipated around grades 3 to 5. The most recent 2008–09 GLA data used in this report provides more evidence that by Grade 4 the age effect was not apparent.

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[2] Please note that not all Grade 1 students were depicted on this graph since some students were much older than the targeted group of students and hence fell outside the scope of analysis.
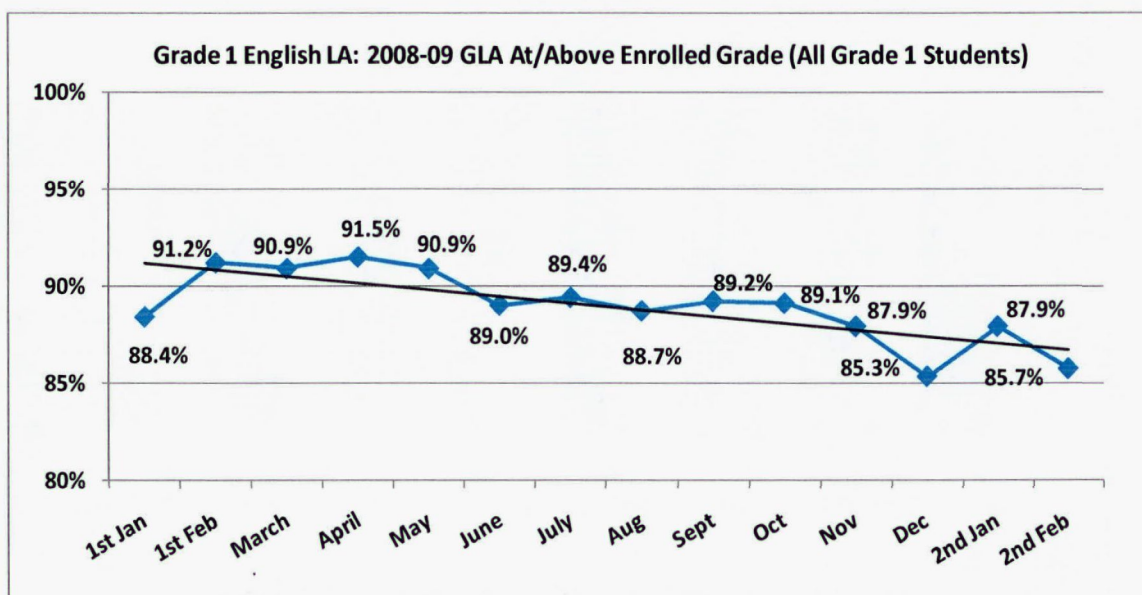
Grade 1 English LA: 2008-09 GLA At/Above Enrolled Grade (All Grade 1 Students)

Figure 8: **Grade 1 GLA Results in English Language Arts Depending on Student Birth Month**

The above-shown general relationship is based on the Grade 1 cohort (35,486 students). It is useful, however, to break these general grade data according to specific student groups in order to capture possible unique age-based variations within these distinct groups.

Figure 9 below shows the birth month–GLA relationship for non-coded students only (e.g., those who did not receive gifted, ESL or any disability codes). Not surprisingly, since the non-coded students represent the vast majority of Grade 1 cohort (78 percent), the relationship between GLA results and birth month bear a great deal of similarity to the relationship for the total cohort. Non-coded students, however, showed slightly higher performance than the Grade 1 cohort in general, since the latter includes students with various codes assigned. The graphs in Figures 10 through 14 illustrate the birth month–GLA relationship for various coded groups of students. (The data plotted on the mentioned figures is based on students coded in *one* of the following categories: gifted, ESL, mild or moderate disabilities and severe disabilities. Students who were assigned more than one of the mentioned codes were excluded from the analysis.)
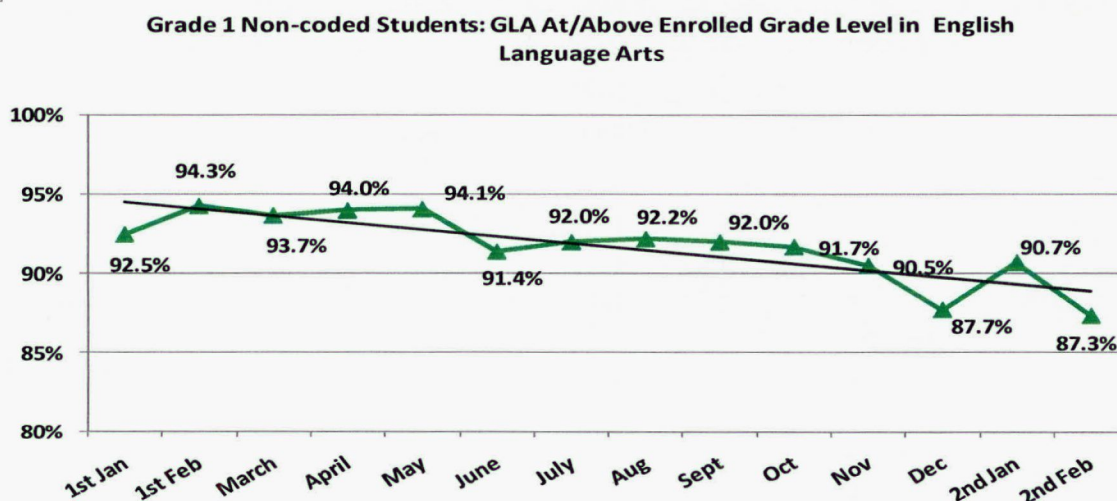
Grade 1 Non-coded Students: GLA At/Above Enrolled Grade Level in English Language Arts

Figure 9: GLA English Language Arts Results for Non-coded Grade 1 Students Depending on Birth Month

The data on a small number of Grade 1 students who are gifted (160 students only) provide some indication of the age-based variations in student achievement, but this relationship is not clear in this particular student group, which incorporates top performers (see Figure 10 below). The overwhelming majority of Grade 1 students who are gifted met or exceeded their enrolled grade requirements irrespective of their age.

Grade 1 Gifted Students: GLA At/Above Enrolled Grade Level in English Language Arts
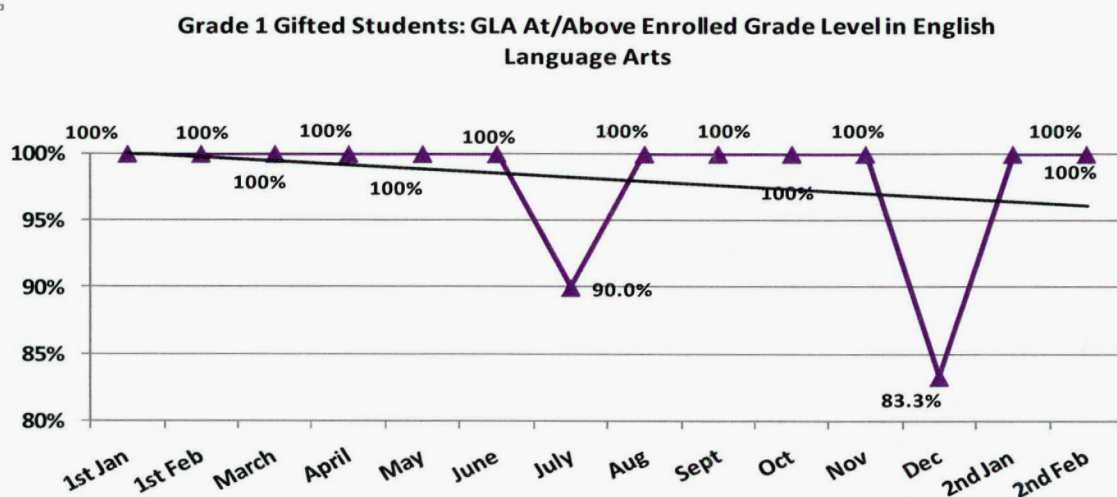
Figure 10: GLA English Language Arts Results for Gifted Grade 1 Students Depending on Birth Month

The data on both Canadian- and foreign-born ESL students (Figures 11 and 12) revealed a reversed age-related pattern: younger students tended to outperform the older ones. This seemingly counterintuitive relationship makes sense for this particular group. Early start at a younger age may contribute to early refinement of English language skills and consequently

better achievement. Therefore, ESL students who entered Grade 1 at a younger age may be at an advantage compared to older students who receive language skills supports later.
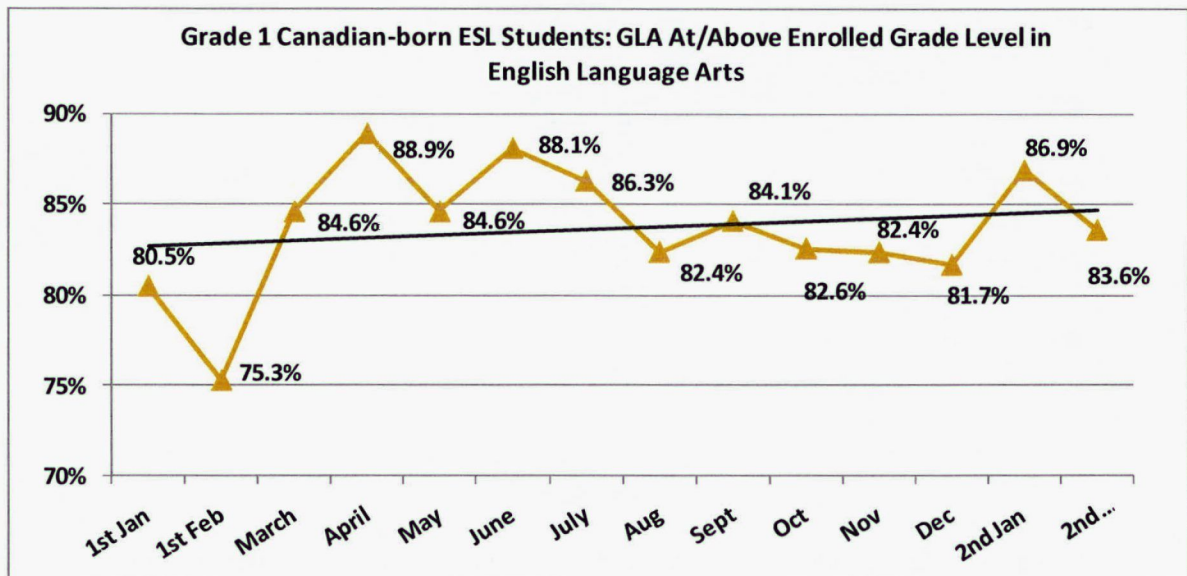
Grade 1 Canadian-born ESL Students: GLA At/Above Enrolled Grade Level in English Language Arts

Figure 11: GLA English Language Arts Results for Canadian-born ESL Grade 1 Students Depending on Birth Month

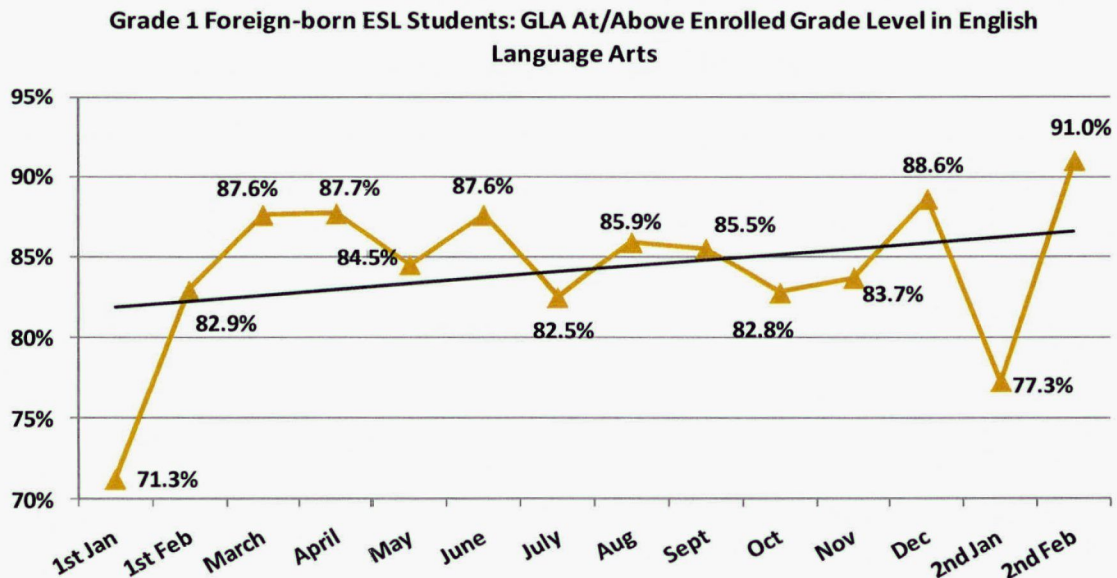**Grade 1 Foreign-born ESL Students: GLA At/Above Enrolled Grade Level in English Language Arts**

Figure 12: GLA English Language Arts Results for Foreign-born ESL Grade 1 Students Depending on Birth Month

Figures 13 and 14 below illustrate age-based achievement variations for students coded with various mild or moderate and severe disabilities. In all, the relationship for students with special

needs follows the pattern for the Grade 1 cohort in general: older students tend to perform better than the younger students in the same grade. It should be mentioned, however, that (as illustrated in previous sections of this report) students with special needs achieved at a much lower level compared to the total cohort. The percentage of these students achieving at or above the enrolled grade level normally fell under 70 percent, whereas 85 percent or more of Grade 1 cohort students were at or above grade level. Additionally, the graphs reveal more significant fluctuations in GLA results in both students with mild or moderate and students with severe disabilities (see Figures 13 and 14) compared to the total Grade 1 cohort and non-coded students (see Figures 8 and 9). These strong fluctuations can be explained by a great variation in individual special needs, which require customized student supports.
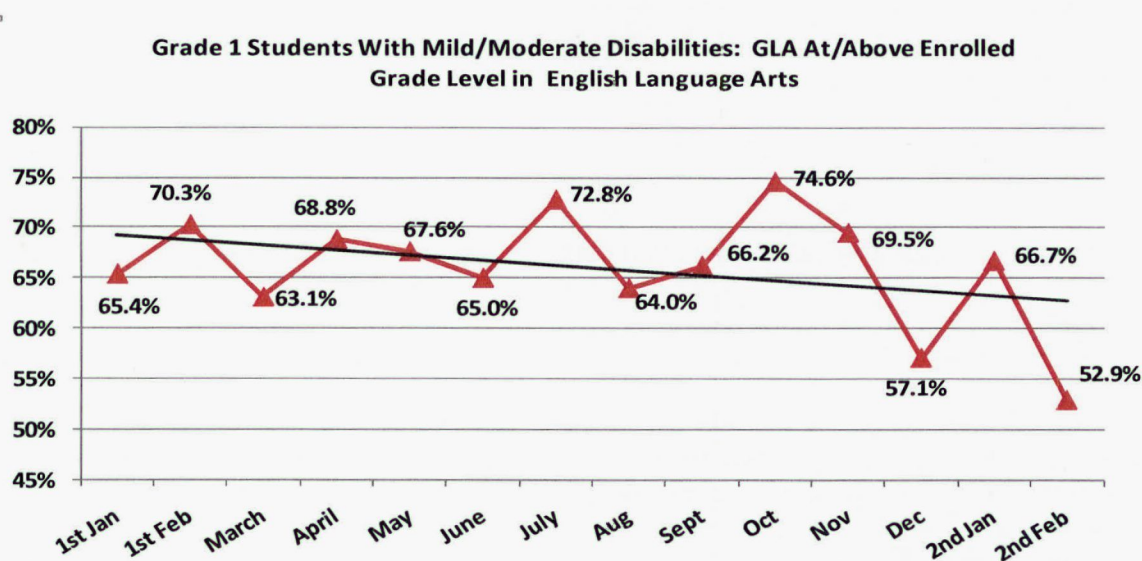
Grade 1 Students With Mild/Moderate Disabilities: GLA At/Above Enrolled Grade Level in English Language Arts

Figure 13: **GLA English Language Arts Results Depending on Birth Month for Grade 1 Students Coded with Various Mild or Moderate Disabilities**
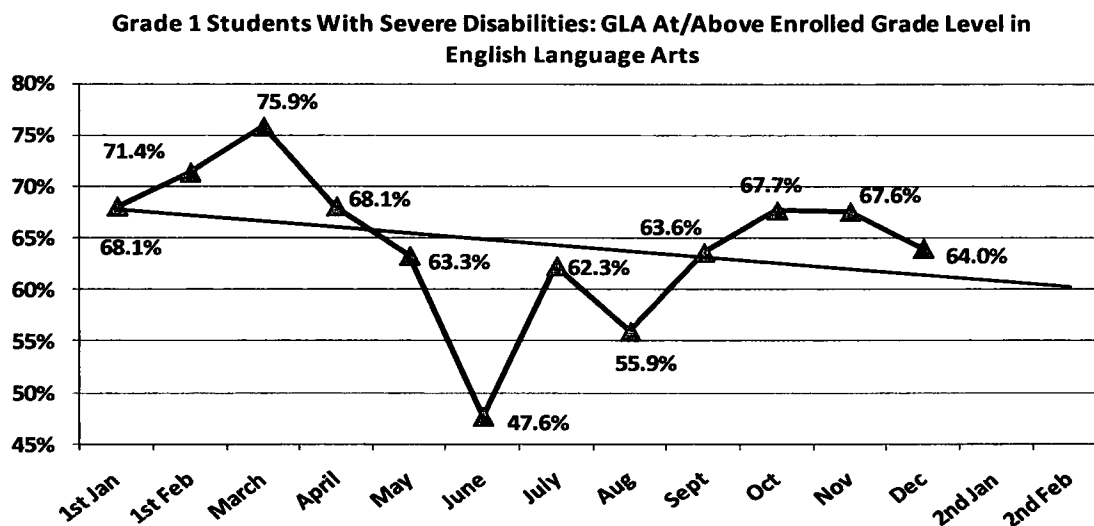
o

Grade 1 Students With Severe Disabilities: GLA At/Above Enrolled Grade Level in English Language Arts

Figure 14: *GLA English Language Arts Results Depending on Birth Month for Grade 1 Students Coded with Various Severe Disabilities*

(**Note:** Data for second January and February are not shown due to a very small number of students in these age categories.)

The data demonstrate that it is useful to consider specific groups of students (e.g., coded students) when reflecting on the effects of student age or other factors on achievement. These effects may differ depending on the particulars of each individual student group. While lacking relevance in schools with relatively homogeneous ages of elementary students, the age-related achievement differences may constitute a serious issue in schools where the age differentiation is high or skewed toward younger students.

Student Mobility

Changing schools, especially during the school year, can be disruptive for students, who may be placed at a different point in the curriculum relative to their prior levels of achievement. It also takes some time for teachers to determine learning levels, styles and interaction skills of these students in order to define the optimal program.

The negative link between student mobility and academic performance is captured in research literature. An Alberta-based study (Wasserman, 2001) suggests that additional study would be useful to enrich understanding of the negative impacts while highlighting helpful strategies for supporting student transitions.

Student school registrations are captured by Alberta Education, once at the end of September and again in March, and compiled in the Student Information System (SIS). The Student Mobility Indicator (SMI) reflects the number of times a student has changed schools since entry into the Alberta school system and up until the most recent calendar year. Students could be changing

schools more frequently than is captured, thus SMI may be a conservative estimate of student mobility. All students start with an SMI of 1 as they have all been registered in at least one school. SMI is grouped in this report into two (high and low) mobility categories. In grades 1 to 3, students with SMI of 2 or more are considered high mobility. In grades 4 to 6, high mobility students are those having a mobility indicator of 3 or more. In grades 7 to 9, high mobility students are those with SMI of 4 or more. Table 12 below shows GLA results according to these two mobility categories for students on a graded curriculum in grades 1 to 9.

As illustrated in Table 12, the majority of students are low mobility. As expected, a greater proportion of high mobility students have a GLA below their enrolled grade level compared to low mobility students.

Table 12 – GLA Results by Student Mobility—Provincial Level

	High Mobility		Low Mobility	
Mathematics	Number of students	Percent of total	Number of students	Percent of total
GLA below grade level	9,208	13.3	15,889	6.5
GLA at grade level	58,140	83.9	224,423	91.4
GLA above grade level	717	1.0	2,853	1.2
No GLA provided	1,203	1.7	2,405	1.0
Total	69,268	100	245,570	100
English LA				
GLA below grade level	10,204	14.7	19,528	8.0
GLA at grade level	56,702	81.9	216,171	88.0
GLA above grade level	536	0.8	2,458	1.0
No GLA provided	1,826	2.6	7,413	3.0
Total	69,268	100	245,570	100
French LA				
GLA below grade level	163	5.8	827	3.7
GLA at grade level	2,324	83.0	20,221	89.3
GLA above grade level	29	1.0	256	1.1
No GLA provided	285	10.2	1,352	6.0
Total	2,801	100	22,656	100

Figures 15 and 16 compare percentages of high and low mobility students achieving below grade level in mathematics and English language arts. Consistently, higher percentages of highly mobile students fell below grade level compared to their low-mobile counterparts. Congruent with the previous 2007–08 GLA data about twice as many students characterized by high mobility tended to achieve below grade level in both subjects compared to low-mobility students, in all nine grades.

Figures 15 and 16 demonstrate that Grade 4 presents a particularly challenging time for students with high mobility, and the negative impact of high mobility is especially strong in language arts in the early elementary grades. This observation also was apparent in the 2007–08 GLA report. The 2007–08 jump in the percentages of highly mobile Grade 8 students below grade level is not apparent in the 2008–09 data, but the high percentage of Grade 9 highly mobile students below grade level in language arts and especially mathematics is noteworthy, keeping in mind that student mobility is often associated with other socio-economic factors.

Percent of Students Below Grade Level by Mobility Category for Mathematics (2008-09)
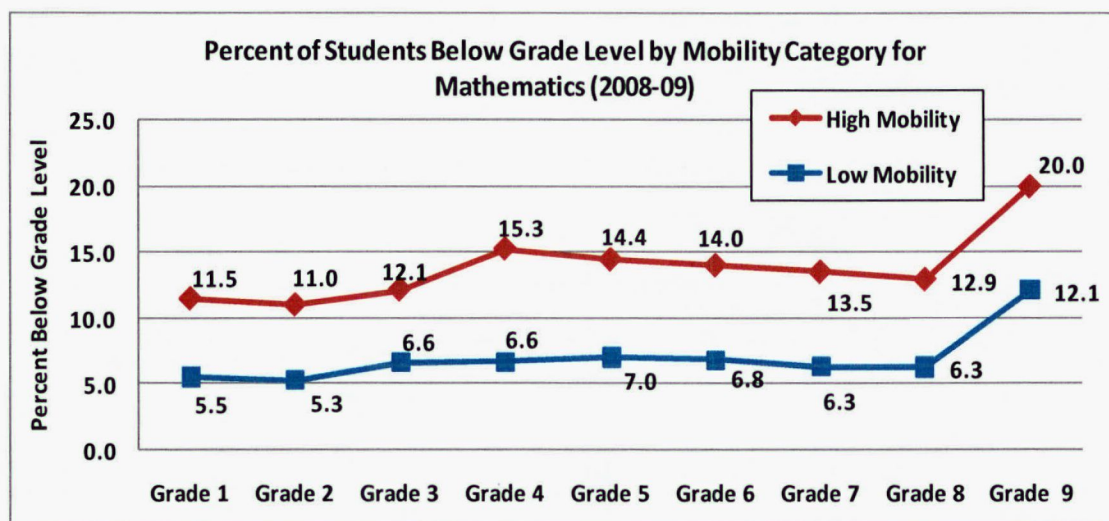
Figure 15: **Below Grade Level of Achievement in Mathematics for High and Low Mobility Students**

Percent of Students Below Grade Level by Mobility Category for English LA (2008-09)
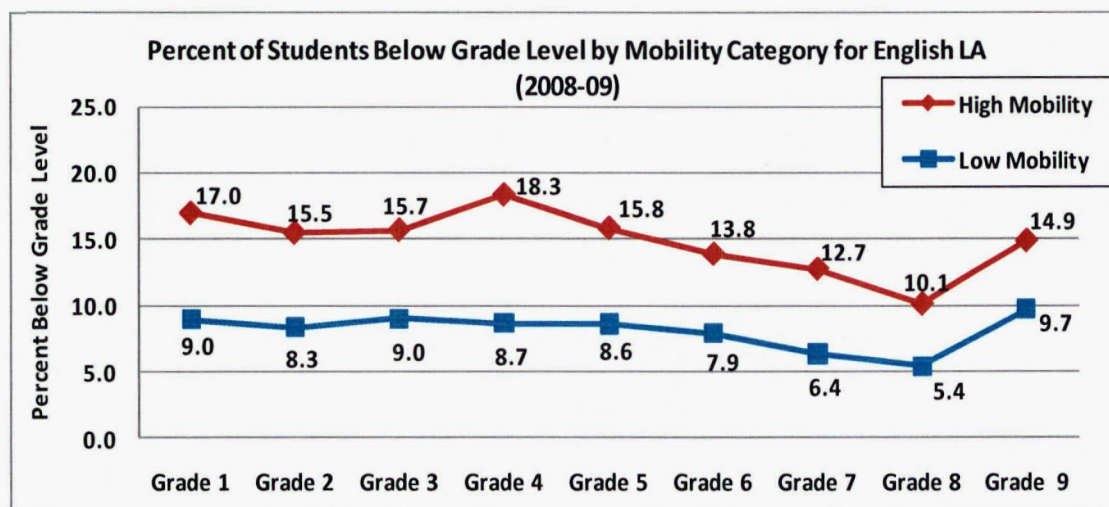
Figure 16: **Below Grade Level of Achievement in English LA for High and Low Mobility Students**

Socio-economic Status

Research literature consistently points to a link between socio-economic status (SES) and student academic outcomes; e.g., Adams & Ryan, 2000; Dahl & Lochner, 2005; Magnuson, K., 2003; Morris, Duncan & Rodrigues, 2006; van Zanten, 2005. A new feature of GLA reporting is the analysis of grade achievement results associated with SES variables (presented here and provided in jurisdiction level GLA reports via the Extranet). As illustrated on the graphs below, provincial GLA data are clearly associated with the key SES variables, such as family dwelling ownership, average family income, parent (mother's) education and family composition. The analyzed SES variables are aggregated for provincial and jurisdiction level reports, based on student residence in relationship to the school attended and the most current 2006 census data.

Data in Figure 17 below reveal a clear, positive link between average percent of families in owned dwellings and GLA in both language arts and mathematics. Over 90 percent of students who performed at or above their enrolled grade were also in schools with over 90 percent of family dwelling ownership. At the same time, less than 80 percent of students in schools, where only half or less of families owned a home, were at or above grade level and approximately 20 percent were below grade level.
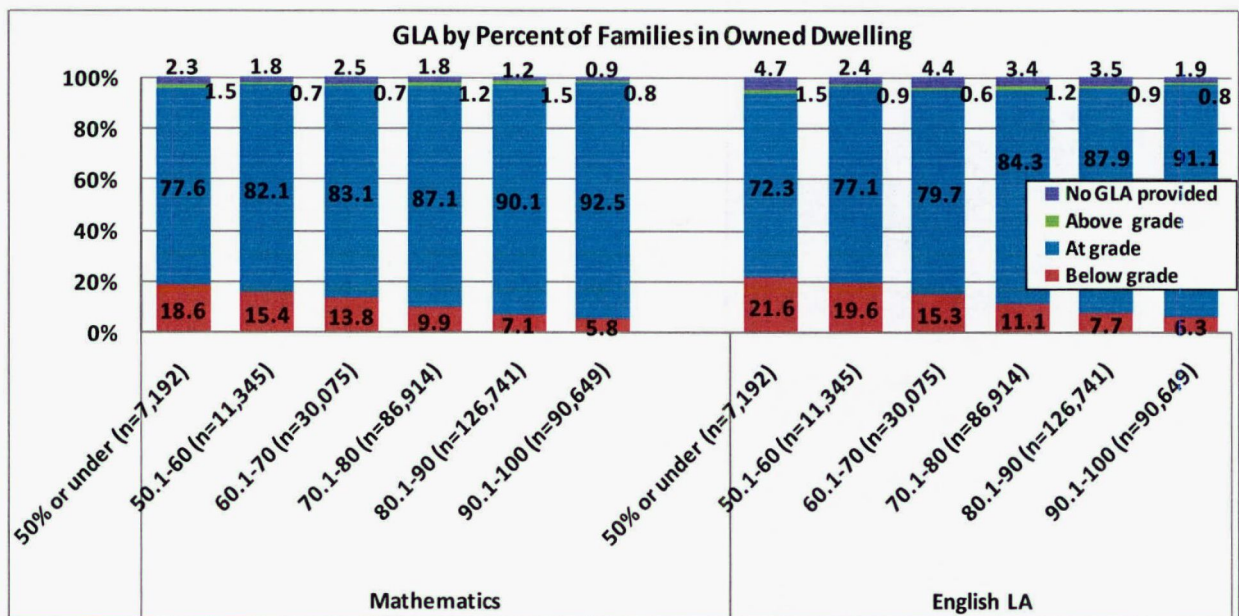

GLA by Percent of Families in Owned Dwelling

Figure 17: **Percent of Families in Owned Dwelling and Grade Level of Achievement**

Congruent with the family dwelling ownership, average family income also shows a clear and relatively strong positive association with GLA. Notably higher proportions of students in schools represented by relatively high-income families had GLA at or above their enrolled grades (see Figure 18). The linearity of the relationship for the lowest income category (less than $35,000) is weaker, suggesting a hypothesis that this pattern could be explained by low-income, recent immigrants who view education as a high priority and a means to a better life. However, this hypothesis would require further research to test it.
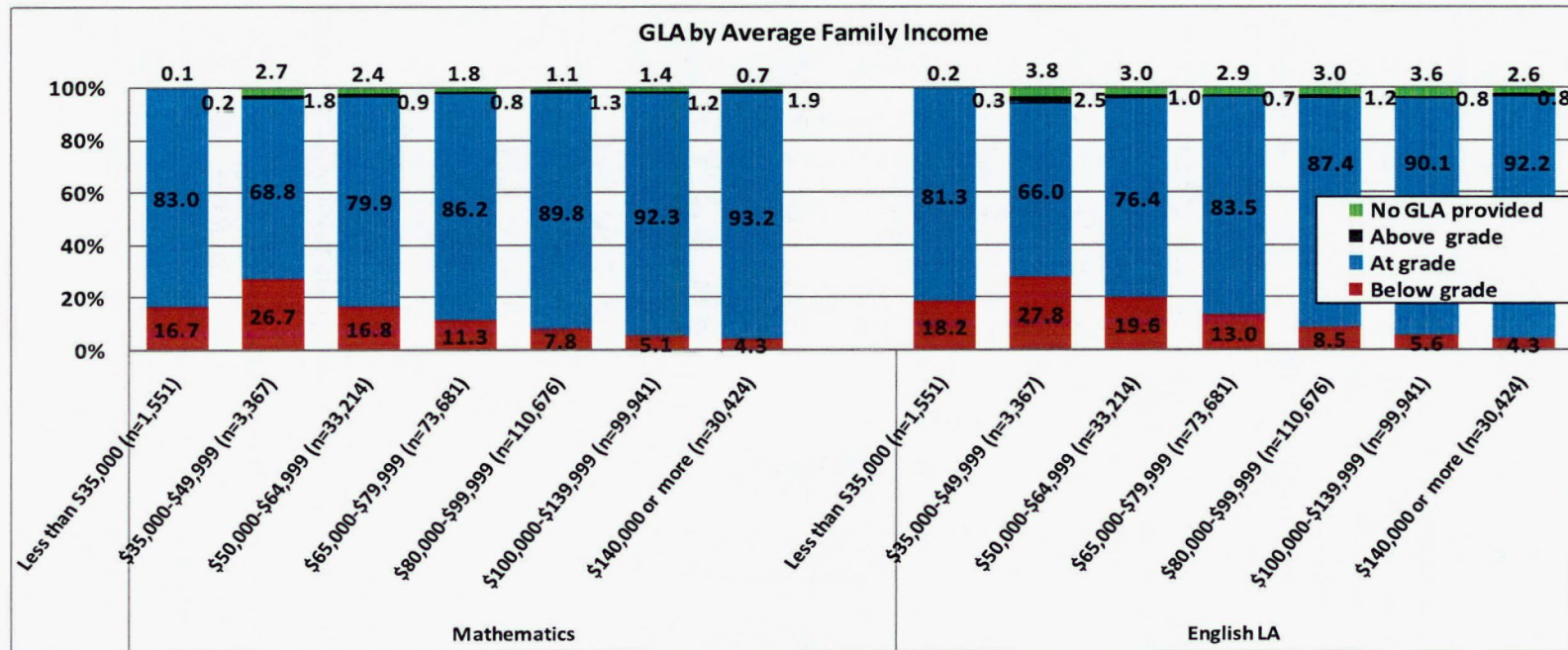
GLA by Average Family Income

Figure 18: **Average Family Income and Grade Level of Achievement**

Data in Figure 19 below reveal a positive link between average years of mother's education and GLA. Generally, higher percentages of students from the schools characterized by higher levels of mother's education tended to perform at or above their enrolled grade levels and lower percentages tended to fall below grade level. Mother's education of 12.1 or more years (which could be indicative of additional economies associated with high school completion) appears to be a threshold beyond which students show a notably higher performance in comparison to their counterparts with mother's education of 11 years or less. The vast majority of students were in schools distinguished by average mother's education ranging from 12.1 to 14 years.
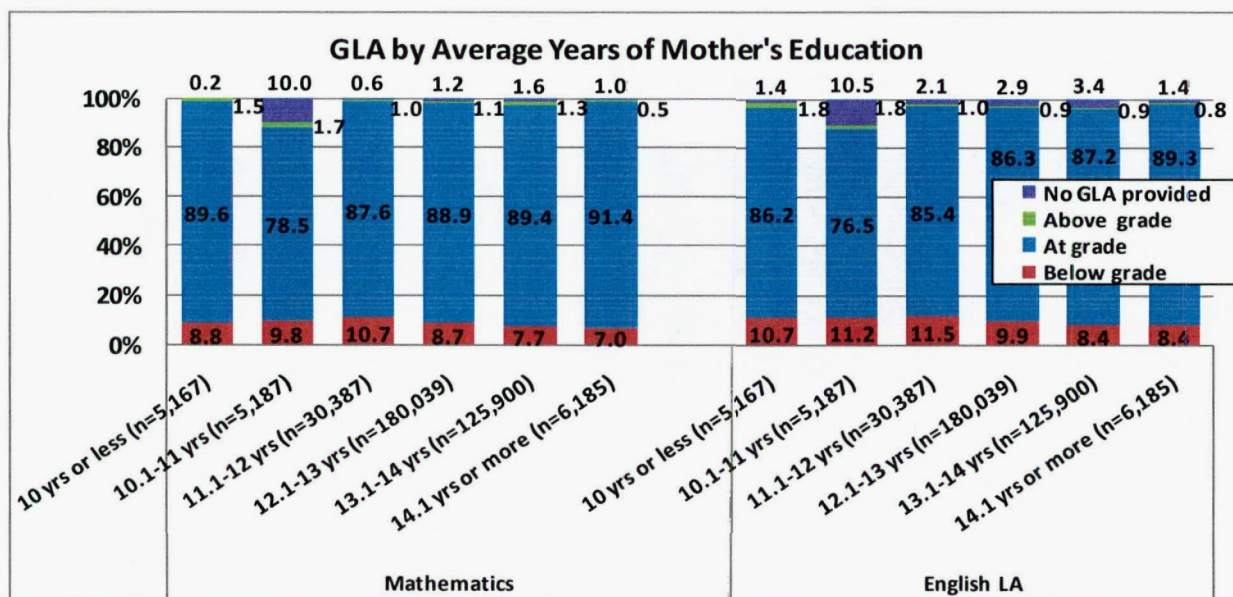

Figure 19: Average Years of Mother's Education and Grade Level of Achievement

As illustrated in Figure 20 below, GLA results have a notable negative link to being a child from a lone parent family. Consistently higher proportions of students in schools characterized by low percentages of lone parent families reached GLA at or above enrolled grade level compared to their counterparts from schools with high percentages of such families. The proportions of students at or above grade level approached or exceeded 90 percent in schools where percentage of lone parent families did not exceed 30 percent. Conversely, only slightly higher or under 80 percent of students from schools with 30 or more percent of lone parent families met or exceeded their enrolled grade requirements and up to 23 percent of these students fell below grade level.
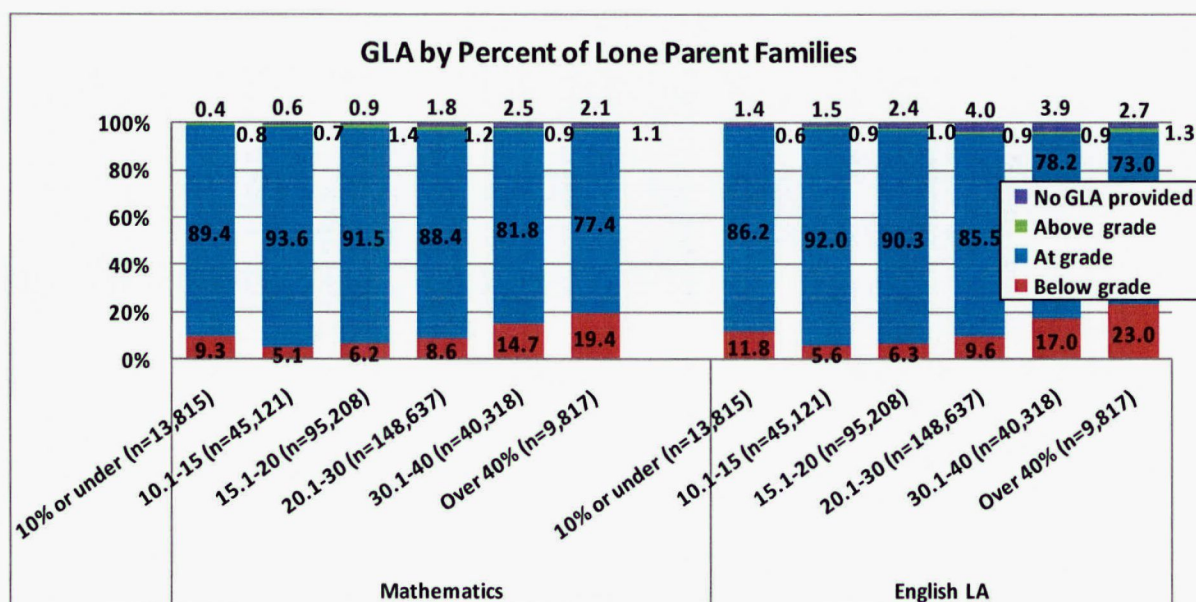

GLA by Percent of Lone Parent Families

Figure 20: **Percent of Lone Parent Families and Grade Level of Achievement**

COMPARATIVE ANALYSIS OF GLA AND PAT ACHIEVEMENT LEVELS

From a technical perspective, all tests are subject to some degree of test error (Crocker and Algina, 1986). Essentially, the true score resulting from a test varies to some degree from the observed score, and the difference between the two is test error generated by test design or testing context issues. Thus, the more frequent and systematic achievement data (originating from alternative sources) are available, the fuller and clearer the true picture of student achievement becomes. In particular, it is useful to regularly compare GLA and PAT outcomes, given that both are designed to assess whether students have met grade-level standards. (Both assessment types measure and provide evidence on how well a student is achieving the learning outcomes in the program of studies.) Some variation between PAT and GLA outcomes is

reasonable and expected due to the difference in measurement approaches.[3] However, large discrepancies and the reasons for those are worth examining and explaining to ensure students and parents are well-served by the assessments used to evaluate student achievement and are fully informed of what the assessment results imply for future programming decisions.

The comparative analysis of GLA and PAT results is shown in Figures 21 and 22. In order to compare GLA and PAT data, the latter is shown in the following categories: acceptable or excellence; below acceptable; and excused or absent. These PAT groupings were cross-tabulated with the GLA at/above grade level, below grade level, and GLA data not available categories. The expectation was that students who score at or above the acceptable level on PATs also tend to be at or above grade level on GLA, and similar percentages of students who score below acceptable on PATs are judged below grade level on GLA. As illustrated in Figures 21 and 22, between 79 and 82 percent of the students in English language arts and between 66 and 80 percent in mathematics who were at grade level in GLA also met the acceptable or excellence benchmark on the PATs. These recent 2008–09 results closely resemble the 2007–08 results (Alberta Education, 2009a).
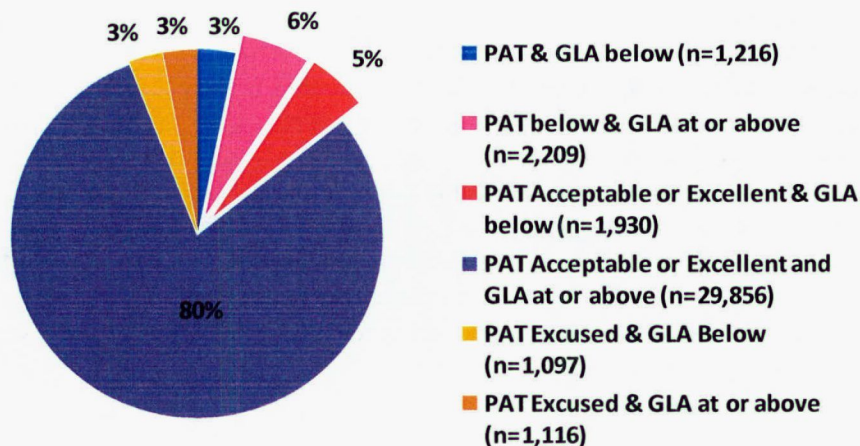
At the same time, it should be noted that higher proportions of students are categorized as "below acceptable" in the PAT results than is true in GLA ratings (see the largest pulled-out slices in the graphs). This suggests that PATs might be a more difficult standard to attain than GLA. The variance between the two sets of measures may be explained as follows:

1) extraneous factors such as rewarding good behaviour or attendance with "bonus marks" may enhance GLA
2) a teacher's personal knowledge of the student may make it more difficult to judge a student as "below grade level" than is the case for PAT markers who do not know the students whose work they are judging
3) student performance on PATs may be attenuated by test anxiety
4) students may perform better on many assessments over time than on a single paper-and-pencil test
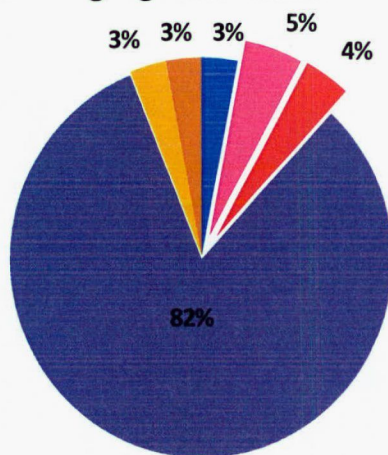5) or a combination of these factors and/or other factors.

The key opportunity this analysis presents lies in identifying where discrepancies occur, both individually and for various student groups, and investigating the specific reasons for the discrepancy.

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[3] GLA is based on an array of classroom assessment methods over time, ideally measuring the full and complete range of learning outcomes, whereas the PAT is a single, highly valid and reliable, selected and constructed-response test that typically measures between 66 and 95 percent of the curricular outcomes in the tested subjects. (These figures were obtained from a discussion paper presented to the Program and Accountability Advisory Committee, November 8, 2007.) The PATs are very likely to be the best criterion-referenced assessment instruments available.
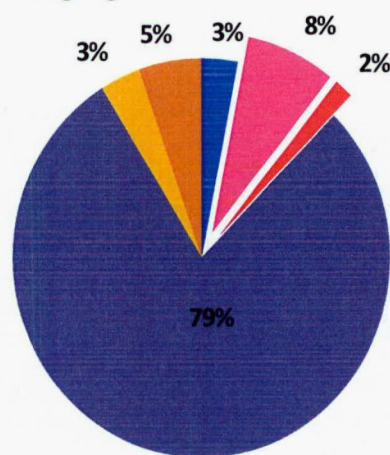
English Language Arts - Grade 3

- ■ PAT & GLA below (n=1,216)
- ■ PAT below & GLA at or above (n=2,209)
- ■ PAT Acceptable or Excellent & GLA below (n=1,930)
- ■ PAT Acceptable or Excellent and GLA at or above (n=29,856)
- ■ PAT Excused & GLA Below (n=1,097)
- ■ PAT Excused & GLA at or above (n=1,116)

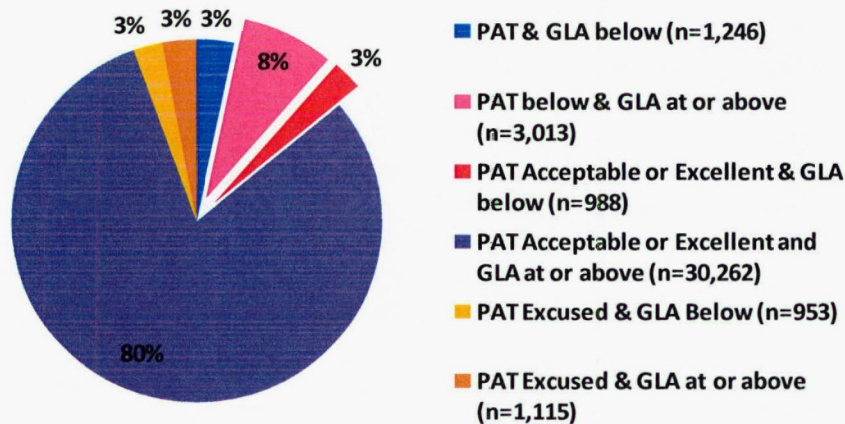## English Language Arts - Grade 6

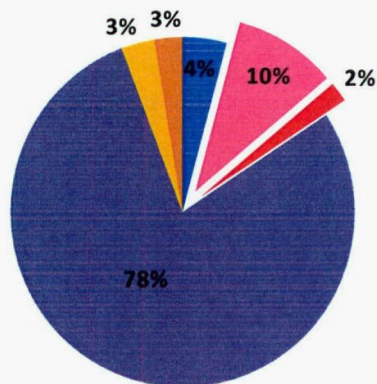## English Language Arts - Grade 9

The graphs depict congruence and difference between PAT and GLA assessment results in grades 3, 6 and 9 English language arts. The results are *congruent* if the same students had their PATs and GLA results below acceptable level or below enrolled grade (dark blue slice on the top); or the same students had their PAT and GLA results at or above acceptable level or at/above enrolled grade (large dark purple slice at the bottom). When added together, these percentages comprise the majority of students. *Differences* between PATs and GLA occur when students' PAT is below acceptable, but GLA is at/above enrolled grade level (pink pulled-out slice), or, conversely, when PAT is acceptable/excellent, but GLA is below enrolled grade level (red pulled-out slice). When combined, two pulled-out slices represent total percentage of variation between PAT and GLA results.

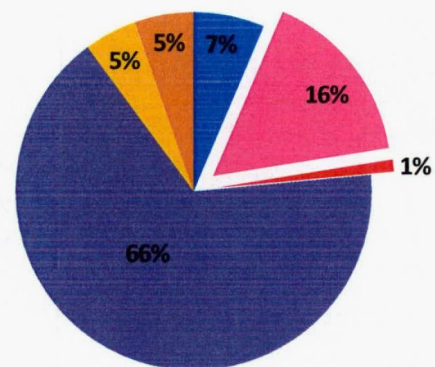***Figure 21:*** **Comparison of PAT and GLA Results in English Language Arts**

Mathematics - Grade 3

3% 3% 3%   3%
8%

80%

- PAT & GLA below (n=1,246)

- PAT below & GLA at or above
  (n=3,013)

- PAT Acceptable or Excellent & GLA
  below (n=988)

- PAT Acceptable or Excellent and
  GLA at or above (n=30,262)

- PAT Excused & GLA Below (n=953)

- PAT Excused & GLA at or above
  (n=1,115)

Mathematics - Grade 6

3% 3%
4%   10%
2%

78%

Mathematics - Grade 9

5% 5% 7%
16%

1%

66%

The graphs depict congruence and difference between PAT and GLA assessment results in grades 3, 6 and 9 mathematics. The results are *congruent* if the same students had their PATs and GLA results below acceptable level or below enrolled grade (dark blue slice on the top); or the same students had their PAT and GLA results at or above acceptable level or at/above enrolled grade (large dark purple slice at the bottom). When added together, these percentages comprise the majority of students. *Differences* between PATs and GLA occurs when students' PAT is below acceptable, but GLA is at/above enrolled grade level (pink pulled-out slice), or, conversely, when PAT is acceptable/excellent, but GLA is below enrolled grade level (red pulled-out slice). When combined, two pulled-out slices represent total percentage of variation between PAT and GLA results.

Figure 22: **Comparison of PAT and GLA Results in Mathematics**

STUDENTS NOT ON A GRADED CURRICULUM (MODIFIED PROGRAMMING)

There were 4,584 students reported as not being on a graded curriculum in 2008–09. They were assessed according to foundation, academic readiness and life skills based on their individualized program plans (IPPs). Table 13 below illustrates that close to 50 percent of these students attained all or most of the academic readiness skills and slightly over 40 percent attained all or most of the foundation and life skills. Approximately one third of students not on a graded curriculum achieved some of the mentioned skills and between 13 and 21 percent did not attain the skills.

Table 13 – Reported Individual Program Skills

IPP Skills	Number of Students	Percent of Total Enrolled
Foundation Skills		
All skills attained	719	15.7
Most skills attained	1,176	25.7
Some skills attained	1,504	32.8
None of the skills attained	793	17.3
No data provided	392	8.6
Total	**4,584**	**100**
Academic Readiness Skills		
All skills attained	823	18.0
Most skills attained	1,403	30.6
Some skills attained	1,655	36.1
None of the skills attained	599	13.1
No data provided	104	2.3
Total	**4,584**	**100**
Life Skills		
All skills attained	718	15.7
Most skills attained	1,151	25.1
Some skills attained	1,482	32.3
None of the skills attained	941	20.5
NA	292	6.4
Total	**4,584**	**100**

STUDENT-BASED GLA DATA COMPARISONS

The following section of this report is based on the two last years of *fully implemented* GLA data and offers an example of trend analysis that will be viable at school, jurisdiction and provincial levels as the GLA data over several years become available. The data in these two data sets capture the same students who were registered in Alberta public education system in 2007–08

and 2008–09 schools years and follow their progress in the corresponding GLA reporting periods (see Table 14 below). There were 292,023 matched students in total, excluding Grade 1 2008–09 students and Grade 9 2007–08 students (who moved to Grade 10). Also, understandably, the analyzed set of matched students does not include students who just joined Alberta public education system in 2008–09 or left the system.

Table 14 – Comparison of 2007–08 and 2008–09 GLA Data: Matched Students

GLA Reporting Year		292,023 Matched Students (for Trend Comparisons)								
2008-09	Gr.1	Gr.2	Gr.3	Gr.4	Gr.5	Gr.6	Gr.7	Gr.8	Gr.9	
2007-08		Gr.1	Gr.2	Gr.3	Gr.4	Gr.5	Gr.6	Gr.7	Gr.8	Gr.9

Table 15 below shows GLA results for the mentioned matched students (all grades together). There is an indication of a slight increase in the percentages of students below grade level for mathematics in 2008–09 compared to 2007–08, but a decrease of students in this category for English language arts. However, these results should be considered as preliminary and illustrative, since the full sets of comparative data currently are available for only two years.

Table 15 – Comparison of 2007–08 and 2008–09 GLA Student Outcomes

	2007-08		2008-09	
	Number of students	Percent of total matched	Number of students	Percent of total matched
Mathematics				
GLA below grade level	23,136	7.9	24,151	8.3
GLA at grade level	261,726	89.6	261,488	89.5
GLA above grade level	4,662	1.6	3,567	1.2
No GLA provided	2,499	0.9	2,817	1.0
Total	**292,023**	**100**	**292,023**	**100**
English Language Arts				
GLA below grade level	27,744	9.5	25,463	8.7
GLA at grade level	252,159	86.3	258,833	88.6
GLA above grade level	4,123	1.4	2,697	0.9
No GLA provided	7,997	2.7	5,030	1.7
Total	**292,023**	**100**	**292,023**	**100**

Figures 23 and 24 display the same matched student GLA data split by grade. Most students will have shifted to a higher grade from 2007–08 to 2008–09. In addition, the charts include the data on non-matched Grade 9, 2007–08 students who should be in Grade 10 in 2008–09 and newly arrived Grade 1, 2008–09 students (see the columns with a lighter shade).

Overall, the data reveal somewhat higher percentages of mathematics students below grade level in grades 2, 3, 6, 7, 8 and 9. Conversely, in English language arts there is a slight decline in the percentages of students below grade in grades 4, 6, 7, 8 and 9.

The dissimilar patterns for mathematics and English language arts may be attributed to a very different nature of teaching and learning in these subjects. Learning mathematics is largely a "linear" process so it could be difficult for some students to catch up on the missed concepts. Alternatively, learning language arts could be of a "spiral" character, with students picking up knowledge at various points and levels. Also, older ESL students catching up on their language skills may contribute to slightly better English language arts GLA outcomes in junior high.
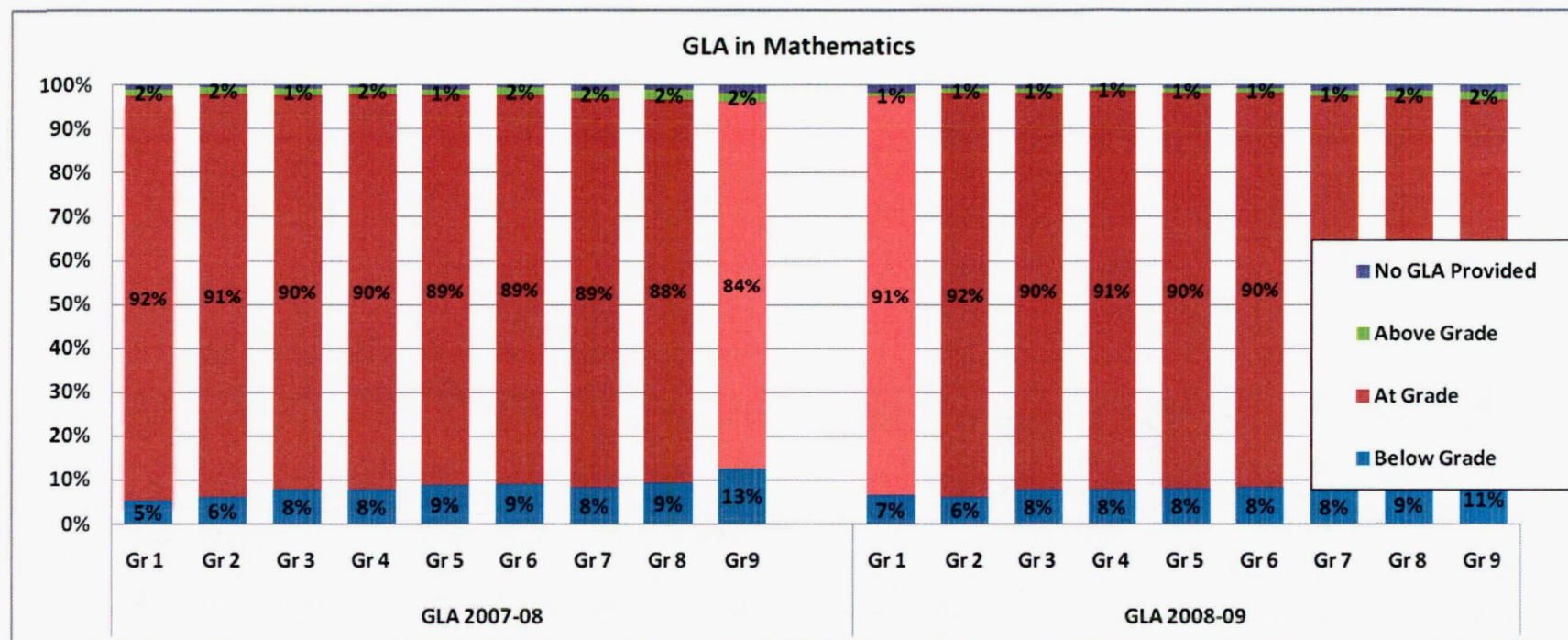
GLA in Mathematics

Figure 23: Comparisons of GLA in Mathematics in 2007–08 and 2008–09 by Grade
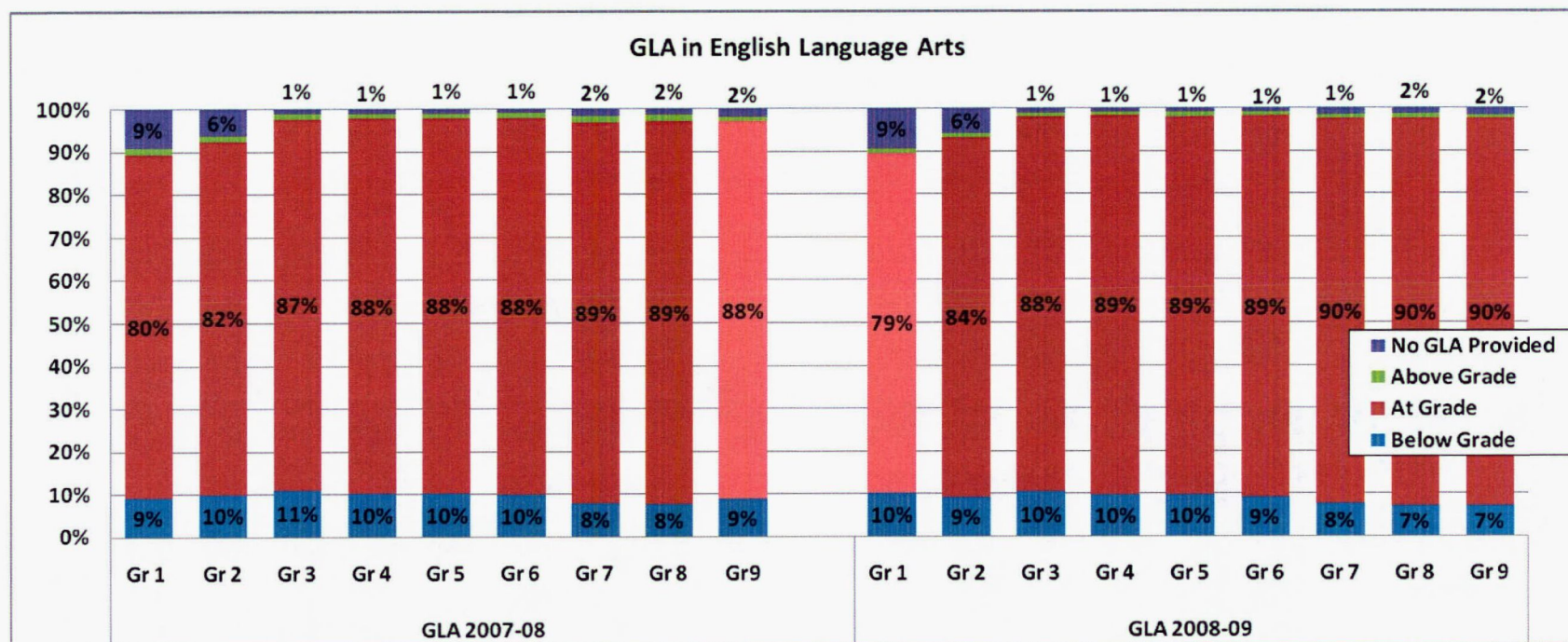
GLA in English Language Arts

Figure 24: **Comparisons of GLA in English Language Arts in 2007–08 and 2008–09 by Grade**

Note: High percentages of Grades 1 and 2 students with English language arts GLA data not reported is due to the alternative GLA reporting in French language arts).

CONCLUSION

This report incorporates fully implemented GLA data and considers how provincial-level GLA data contributes to our knowledge of the achievement of specific student cohorts served by special programming and how a number of critical variables influence student achievement. The report provides teachers, administrators, parents and the public with information that can be used to inform program planning to improve student achievement in Alberta.

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